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Relevance scale ☐ ☐ ☐ ☐ ☐

**1** [Commerce and Businesses: Self-managing, disconnected processes and mechanisms for mobile e-business](#) 

J. Sairamesh, S. Goh, I. Stanoi, C. S. Li, S. Padmanabhan

September 2002 **Proceedings of the 2nd international workshop on Mobile commerce**

Full text available:  [pdf\(351.90 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

With the tremendous advances in hand-held computing and communication capabilities, rapid proliferation of mobile devices, and decreasing device costs, we are seeing a growth in mobile e-business in various consumer and business markets. In this paper, we present a novel architecture and framework for end-to-end mobile e-business applications such as purchasing, retail point of sales, and order management. The design takes into consideration disconnection, application context and failure modes t ...

**Keywords:** context-driven computing, disconnected computing, mobile computing, mobile e-business, self-managing systems, workflow

**2** [Web-based specification and integration of legacy services](#) 

Ying Zou, Kostas Kontogiannis

November 2000 **Proceedings of the 2000 conference of the Centre for Advanced Studies on Collaborative research**


Full text available:  [pdf\(279.28 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

With the explosive growth of the Internet, businesses of all sizes aim on applying networkwide solutions to their IT infrastructures, migrating their legacy business processes into web-based environments, and establishing their own on-line services. To facilitate process and service integration, a complete and information rich service description language, is essential for server processes to be specified and for client processes to be able to locate services that are available in Web-enabled re ...

**3** [Design and implementation of a distributed virtual machine for networked computers](#) 

Emin Gün Sirer, Robert Grimm, Arthur J. Gregory, Brian N. Bershad

December 1999 **ACM SIGOPS Operating Systems Review , Proceedings of the seventeenth ACM symposium on Operating systems principles**, Volume 33 Issue 5

Full text available:  [pdf\(1.62 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper describes the motivation, architecture and performance of a distributed virtual

machine (DVM) for networked computers. DVMs rely on a distributed service architecture to meet the manageability, security and uniformity requirements of large, heterogeneous clusters of networked computers. In a DVM, system services, such as verification, security enforcement, compilation and optimization, are factored out of clients and located on powerful network servers. This partitioning of system fun ...

4 DISE: a programmable macro engine for customizing applications

Marc L. Corliss, E. Christopher Lewis, Amir Roth

May 2003 **ACM SIGARCH Computer Architecture News , Proceedings of the 30th annual international symposium on Computer architecture**, Volume 31 Issue 2

Full text available:  pdf(335.30 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

**Dynamic Instruction Stream Editing (DISE)** is a cooperative software-hardware scheme for efficiently adding customization functionality---e.g, safety/security checking, profiling, dynamic code decompression, and dynamic optimization---to an application. In DISE, application customization functions (ACFs) are formulated as rules for macro-expanding certain instructions into parameterized instruction sequences. The processor executes the rules on the fetched instructions, feeding the executi ...

5 Embedded systems: applications, solutions and techniques (EMBS): Code generation techniques for developing light-weight XML Web services for embedded devices

Robert van Engelen

March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**

Full text available:  pdf(404.19 KB) Additional Information: [full citation](#), [abstract](#), [references](#)

This paper presents specialized code generation techniques and runtime optimizations for developing light-weight XML Web services for embedded devices. The optimizations are implemented in the gSOAP Web services development environment for C and C++. The system supports the industry-standard XML-based Web services protocols that are intended to deliver universal access to any networked application that supports XML. With the standardization of the Web services protocols and the availability of t ...

**Keywords:** Web Services, XML, embedded systems, networking

6 Pen computing: a technology overview and a vision

André Meyer

July 1995 **ACM SIGCHI Bulletin**, Volume 27 Issue 3

Full text available:  pdf(5.14 MB) Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)

This work gives an overview of a new technology that is attracting growing interest in public as well as in the computer industry itself. The visible difference from other technologies is in the use of a pen or pencil as the primary means of interaction between a user and a machine, picking up the familiar pen and paper interface metaphor. From this follows a set of consequences that will be analyzed and put into context with other emerging technologies and visions. Starting with a short historic ...

7 SmartPointers: personalized scientific data portals in your hand

Matthew Wolf, Zhongtang Cai, Weiyun Huang, Karsten Schwan

November 2002 **Proceedings of the 2002 ACM/IEEE conference on Supercomputing**

Full text available:  pdf(272.96 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The SmartPointer system provides a paradigm for utilizing multiple light-weight client endpoints in a real-time scientific visualization infrastructure. Together, the client and server infrastructure form a new type of data portal for scientific computing. The clients can be used to personalize data for the needs of the individual scientist. This personalization of a

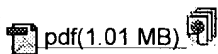
shared dataset is designed to allow multiple scientists, each with their laptops or iPads to explore the dataset from different an ...

8 Adapting the web interface: an adaptive web browser

K. Henriksen, J. Indulska

January 2001 **Australian Computer Science Communications , Proceedings of the 2nd Australasian conference on User interface**, Volume 23 Issue 5

Full text available:



Additional Information: [full citation](#), [abstract](#), [references](#)

[Publisher Site](#)

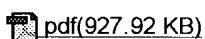
The growing number of mobile computing devices with diverse characteristics creates a requirement for seamless (device independent) access to computing resources of distributed systems. One of the most common applications in distributed systems is the Web browser, which is not only used to access resources on the Internet but also as an interface to many Information Systems applications. In this paper, we address types of adaptation that can be applied to a Web browser in response to diverse con ...

9 Architecture and performance of server-directed transcoding

Björn Knutsson, Honghui Lu, Jeffrey Mogul, Bryan Hopkins

November 2003 **ACM Transactions on Internet Technology (TOIT)**, Volume 3 Issue 4

Full text available:



Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

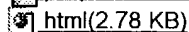
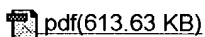
Proxy-based transcoding adapts Web content to be a better match for client capabilities (such as screen size and color depth) and last-hop bandwidths. Traditional transcoding breaks the end-to-end model of the Web, because the proxy does not know the semantics of the content. *Server-directed transcoding* preserves end-to-end semantics while supporting aggressive content transformations. We show how server-directed transcoding can be integrated into the HTTP protocol and into the implementat ...

**Keywords:** HTTP, proxy, transcode, web

10 Computing curricula 2001

September 2001 **Journal on Educational Resources in Computing (JERIC)**

Full text available:



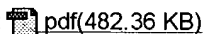
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11 Monitoring, security, and dynamic configuration with the dynamicTAO reflective ORB

Fabio Kon, Manuel Román, Ping Liu, Jina Mao, Tomonori Yamane, Claudio Magalhã, Roy H. Campbell

April 2000 **IFIP/ACM International Conference on Distributed systems platforms**

Full text available:



Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)

Conventional middleware systems fail to address important issues related to dynamism. Modern computer systems have to deal not only with heterogeneity in the underlying hardware and software platforms but also with highly dynamic environments. Mobile and distributed applications are greatly affected by dynamic changes of the environment characteristic such as security constraints and resource availability. Existing middleware is not prepared to react to these changes. In many cases, applicati ...

12 Multi-platform interfaces: Flexible interface migration

Renata Bandelloni, Fabio Paternò

January 2004

**Proceedings of the 9th international conference on Intelligent user interface**

Full text available:  [pdf\(504.33 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The goal of this work is to provide users immersed in a multi-platform environment with the possibility of interacting with an application while freely moving from one device to another. We describe the solution that we have developed for a service to support platform-aware runtime migration for Web applications. This allows users interacting with an application to change device and continue their interaction from the same point. The service performs the migration of the application taking into ...

**Keywords:** adaptive interfaces, migratory interfaces, multi-platform applications, remote control

**13 Towards second and third generation web-based multimedia**


Jacco van Ossenbruggen, Joost Geurts, Frank Cornelissen, Lynda Hardman, Lloyd Rutledge  
April 2001 **Proceedings of the tenth international conference on World Wide Web**

Full text available:  [pdf\(563.48 KB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

**Keywords:** SMIL, XML, XSLT, multimedia, transformations

**14 Mobile and Cooperative Systems: An authorization infrastructure for nomadic computing**

Kan Zhang, Tim Kindberg  
June 2002 **Proceedings of the seventh ACM symposium on Access control models and technologies**

Full text available:  [pdf\(198.22 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present an infrastructure for flexible and secure access to a group of distributed services in a nomadic computing environment, wherein users access local services from their mobile, wirelessly connected devices. We describe a secure hand-off protocol, which allows a user to register with a single service that hands off authorization to access a subset of the services. Our protocol helps maintain the user's privacy. It allows the services (which may be implemented on simple appliances) and ...

**Keywords:** access control, authorization, mobile computing, nomadic computing, ubiquitous computing

**15 Out of core methods: Out-of-core sort-first parallel rendering for cluster-based tiled displays**

Wagner T. Corrêa, James T. Klosowski, Cláudio T. Silva  
September 2002 **Proceedings of the Fourth Eurographics Workshop on Parallel Graphics and Visualization**

Full text available:  [pdf\(463.98 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)


We present a sort-first parallel system for out-of-core rendering of large models on cluster-based tiled displays. The system is able to render high-resolution images of large models at interactive frame rates using off-the-shelf PCs with small memory. Given a model, we use an out-of-core preprocessing algorithm to build an on-disk hierarchical representation for the model. At run time, each PC renders the image for a display tile, using an out-of-core rendering approach that employs multiple th ...

16 Tracing the roots of markup languages

Rishi Toshniwal, Dharma P. Agrawal

May 2004 **Communications of the ACM**, Volume 47 Issue 5

Full text available:  pdf(191.70 KB)

 html(17.95 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Markup languages provide efficient ways of storing information on the Web and make the retrieval process easier. Indeed, its simplicity and added intelligence to the document makes it useful for messaging between clients and server.

17 Shared visiting in EQUATOR city

Ian MacColl, Dave Millard, Cliff Randell, Anthony Steed, Barry Brown, Steve Benford, Matthew Chalmers, Ruth Conroy, Nick Dalton, Areti Galani, Chris Greenhalgh, Danus Michaelides, Tom Rodden, Ian Taylor, Mark Weal

September 2002 **Proceedings of the 4th international conference on Collaborative virtual environments**

Full text available:  pdf(224.19 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In this paper we describe an infrastructure and prototype system for sharing of visiting experiences across multiple media. The prototype supports synchronous co-visiting by physical and digital visitors, with digital access via either the World Wide Web or 3-dimensional graphics.

**Keywords:** co-visiting, digital, physical

18 Evolutionary design of complex software (EDCS) demonstration days 1999

Wayne Stidolph

January 2000 **ACM SIGSOFT Software Engineering Notes**, Volume 25 Issue 1

Full text available:  pdf(1.90 MB)

Additional Information: [full citation](#), [abstract](#), [index terms](#)

This report summarizes the Product/Technology demonstrations given at Defense Advanced Research Projects Agency (DARPA) Evolutionary Design of Complex Software (EDCS) Program Demonstration Days, held 28-29 June 1999 at the Sheraton National Hotel, Arlington, VA.

19 Engineering e-learning systems (ELS): Modeling and execution of E-Learning resources

Johannes Lischka, Dimitris Karagiannis

March 2004 **Proceedings of the 2004 ACM symposium on Applied computing**

Full text available:  pdf(212.85 KB)


Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This poster tries to motivate a specific part of a holistic modeling approach for E-Learning with the help of Business Engineering on a technical level. Business Engineering defines generic and holistic methodologies and modeling methods for constructing an organizational memory for a complex environment. Not only aspects of how to run a business from an organizational point of view have to be modeled but also techniques of how to implement business processes technically. Emerging technologies c ...

**Keywords:** RDF, Web-Services, business engineering, e-learning

20 An Architecture for the Integration of Physical and Informational Spaces

Scott M. Thayer, Peter Steenkiste

Full text available:  [pdf\(328.25 KB\)](#) Additional Information: [full citation](#), [abstract](#), [index terms](#)

**Abstract** While computer processing power, storage capacity, and bandwidth are continuing to experience exponential growth, individual human processing capabilities are not increasing significantly. Pervasive computing offers an opportunity for applications to interact with the physical environment and to provide a task-centric and mobile infrastructure for the user. However, this rich environment can also be distracting, in part because of a lack of convergence between the physical infrastructure ...

**Keywords:** Context-aware computing, Distraction-free, Multi-modal input-output, Pervasive computing

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